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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,948	07/30/2003	Ulrich Botzel	L&L-10044	8888

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EXAMINER	
CHAN, SAI MING	
ART UNIT	**PAPER NUMBER**
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/629,948	BOTZEL ET AL.	
	Examiner	Art Unit	
	Sai-Ming Chan	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/30/2003 and 5/19/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on July 30, 2003 and May 19, 2005 have been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scott (U.S. Patent # 6388997),** in view of **Johansson (U.S. Patent # 6975613).**

Consider **claim1**, Scott clearly discloses and shows a data transmission system, comprising:

a base station (fig. 3a (304)) and at least two mobile stations (fig. 3a (302) for interchanging data bursts successively by radio (fig. 8 (transmitter and receiver for radio operation); column 6, lines 6-7) using a time slot method (abstract, lines 5-7; fig. 5a (510 & 511));

a transmitter (fig. 8A (807 transmitter); column 6, lines 6-7) of said base station being configured to transmit first data bursts (fig. 5c (571 - basestation burst)) to said mobile stations, at least some of the first data bursts containing at least two data blocks (fig. 5c (574 has 16 mobile messages); column 20, lines 33-67, column 21, lines 7) intended for different ones of said mobile stations, said transmitter being configured to produce identification information only at a start of a transmission of each of the first data bursts (fig. 5c (574 has one preamble (with the header following it) for all the mobile messages);

each of said mobile stations having a transmitter (fig. 9 (907 transmitter); column 6, lines 11-12) configured to transmit a group of second data bursts (fig. 5c (572 -mobile bursts)) containing a data block intended for said base station (fig. 5c (575s); column 21, lines 38-46), said transmitter being configured to produce identification information (fig. 5c (575 has one preamble (with the header following it) (579) per message);

column 21, lines 38-46) at a start of a transmission of the second data bursts (fig. 5c (575); column 21, lines 38-46); and

a device for producing a guard time interval (base station (fig. 8a (811);column 17, lines 1-9); mobile station (fig.9 (911); column 19, lines 7-15) between the data bursts.

However, Scott does not specially disclose a piconetwork for the data transmission.

In the same field of endeavor, Johansson clearly shows a piconetwork (fig. 2;column 2, lines 61-63).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate data transmission system, as taught by Scott, and show data transmission in a piconetwork, as taught by Johansson, in order to show that data can be transmitted efficiently.

Consider **claim 2**, and **as applied to claim 1 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein said base station and each of said mobile stations have a local oscillator (fig. 18 (1821); column 52, lines 54-58).

Consider **claim 3**, and **as applied to claim 2 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein each of said local oscillators is connected to a respective phase locked loop (fig. 18 (perform at each code phase desired); column 52, lines 1-2, column 53, lines 1-11).

Consider **claim 4**, and **as applied to claim 1 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein the first data bursts and groups of the second data bursts are transmitted alternately (fig. 5c (571 and 572); column 4, lines 64-67, column 5, lines 1-21).

Consider **claim 5**, and **as applied to claim 4 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission, wherein at least one of: the first data burst and a subsequent one of the groups of the second data bursts are at different transmission frequencies (column 5, lines 7-10), and one of the groups of the second data bursts and a subsequent one of the first data bursts are at different transmission frequencies (column 5, lines 7-10).

Consider **claim 6**, and **as applied to claim 5 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein one of the transmission frequency of the first data burst and the group of the second data

bursts is constant during a transmission (column 5, lines 7-10 (frequency band is constant for data bursts).

Consider **claim 7**, and **as applied to claim 1 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein the guard time interval between one of the first data bursts and a subsequent one of the second data bursts is equal to the guard time interval between the one of the second data bursts and the subsequent one of the first data bursts (column 4, lines 37-47 (a single collective guard time)).

Consider **claim 8**, and **as applied to claim 1 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein the guard time intervals between successive second data bursts have equal lengths (fig. 5 (573); column 21, lines 38-46).

Consider **claim 9**, and **as applied to claim 1 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein:

the first data bursts contain at least two data blocks, with one data block being provided for each of said mobile stations (fig. 5c (578 has 16 mobile messages); column 20, lines 33-67, column 21, lines 7), and

a second data burst from each of said mobile stations is in each case provided in the group of the second data bursts (fig. 5c (each mobile burst in 572 is represented by 575); column 21, lines 38-46)).

Consider **claim 10**, and **as applied to claim 1 above**, Scott, as modified by Johansson, clearly discloses and shows the data transmission system, wherein said data transmission system can be used in a system with real-time requirements selected from the group consisting of a cordless communication system, and a computer-controlled entertainment system, a computer-controlled game system (column 49, lines 23-24, lines 31-35).

Consider **claim11**, Scott clearly discloses and shows a frame structure for radio transmission of data bursts between a base station and at least two mobile stations, comprising:

first data bursts transmitted from the base station to the mobile stations, with at least some of said first data burst (fig. 5c (571 - basestation burst)) containing at least two data blocks, each of said data blocks being intended for different mobile stations ((fig. 5c (574 has 16 mobile messages); column 20, lines 33-67, column 21, lines 7)), and further containing identification information at a start of each of said first data bursts(fig. 5c (574 has one preamble (with the header following it) for all the mobile messages);

second data bursts (fig. 5c (572 -mobile bursts)) transmitted from a respective one of the mobile stations to the base station (fig. 5c (575s); column 21, lines 38-46), each of said second data bursts containing a data block intended for the base station and containing identification information at a start of each of the second data bursts(fig. 5c (575 has one preamble (with the header following it) (579) per message) ; and

guard time intervals (base station (fig. 8a (811);column 17, lines 1-9); mobile station (fig.9 (911); column 19, lines 7-15) between successive data bursts.

However, Scott does not specially disclose a piconetwork for the data transmission.

In the same field of endeavor, Johansson clearly shows a piconetwork (fig. 2;column 2, lines 61-63).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate data transmission system, as taught by Scott, and show data transmission in a piconetwork, as taught by Johansson, in order to show that data can be transmitted efficiently.

Consider **claim 12**, and **as applied to claim 11 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein said base station and each of said mobile stations have a local oscillator (fig. 18 (1821); column 52, lines 54-58).

Consider **claim 13**, and **as applied to claim 12 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein each of said local oscillators is connected to a respective phase locked loop (fig. 18 (perform at each code phase desired); column 52, lines 1-2, column 53, lines 1-11).

Consider **claim 14**, and **as applied to claim 12 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein the first data bursts and groups of the second data bursts are transmitted alternately (fig. 5c (571 and 572); column 4, lines 64-67, column 5, lines 1-21).

Consider **claim 15**, and **as applied to claim 14 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein at least one of: the first data burst and a subsequent one of the groups of the second data bursts are at different transmission frequencies (column 5, lines 7-10), and a group of the second data bursts and a subsequent one of the first data bursts are at different transmission frequencies (column 5, lines 7-10).

Consider **claim 16**, and **as applied to claim 15 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein one of the

transmission frequency of the first data burst and the group of the second data bursts is constant during a transmission (column 5, lines 7-10 (frequency band is constant for data bursts).

Consider **claim 17**, and **as applied to claim 11 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein the guard time interval between one of the first data bursts and a subsequent one of the second data bursts equals a guard time interval between said second data bursts and subsequent first data bursts (column 4, lines 37-47 (a single collective guard time)).

Consider **claim 18**, and **as applied to claim 11 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein the guard time intervals between successive second data bursts have equal lengths (fig. 5 (573); column 21, lines 38-46).

Consider **claim 19**, and **as applied to claim 11 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein:

the first data bursts contain two data blocks, with one data block being provided for each of said mobile stations (fig. 5c (578 has 16 mobile messages); column 20, lines 33-67, column 21, lines 7), and

said second data burst include a data burst from each of said mobile stations (fig. 5c (each mobile burst in 572 is represented by 575); column 21, lines 38-46)).

Consider **claim 20**, and **as applied to claim 11 above**, Scott, as modified by Johansson, clearly discloses and shows the frame structure, wherein said data transmission system can be used in a system having a real-time requirements selected from the group consisting of a cordless communication system, and a computer-controlled entertainment system, a computer-controlled game system (column 49, lines 23-24, lines 31-35).

Consider **claim 21**, Scott clearly discloses and shows a method for radio transmission of data between a base station and at least two mobile stations, which comprises the steps:

(a) transmitting a first data burst from the base station to the mobile stations, the first data burst (fig. 5c (571 - basestation burst)) containing at least two data blocks each intended for a different one of the mobile stations (fig. 5c (574 has 16 mobile messages); column 20, lines 33-67, column 21, lines 7), including transmitting identification information only at a start of a transmission of the first data burst (fig. 5c (574 has one preamble (with the header following it) for all the mobile messages);

(b) providing a guard type interval (base station (fig. 8a (811);column 17, lines 1-9); mobile station (fig.9 (911); column 19, lines 7-15); and

(c) transmitting the second data bursts (fig. 5c (572 -mobile bursts)) from one of the mobile stations to the base station, each of the second data bursts containing a data block intended for the base station (fig. 5c (575s); column 21, lines 38-46), each of the mobile stations transmitting identification information (fig. 5c (575 has one preamble (with the header following it) (579) per message); column 21, lines 38-46) at a start of a transmission of the second data bursts (fig. 5c (575); column 21, lines 38-46).

However, Scott does not specially disclose a piconetwork for the data transmission.

In the same field of endeavor, Johansson clearly shows a piconetwork (fig. 2;column 2, lines 61-63).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate data transmission system, as taught by Scott, and show data transmission in a piconetwork, as taught by Johansson, in order to show that data can be transmitted efficiently.

Consider **claim 22**, and **as applied to claim 21 above**, Scott, as modified by Johansson, clearly discloses and shows the method, which further comprises transmitting and receiving data bursts with the base station and each of the mobile stations by using respective local oscillators (fig. 18 (1821); column 52, lines 54-58).

Consider **claim 23**, and **as applied to claim 22 above**, Scott, as modified by Johansson, clearly discloses and shows themethod, wherein each of said local oscillators is connected to a respective phase locked loop (fig. 18 (perform at each code phase desired); column 52, lines 1-2, column 53, lines 1-11).

Consider **claim 24**, and **as applied to claim 21 above**, Scott, as modified by Johansson, clearly discloses and shows the method, wherein the first data bursts and groups of the second data bursts are transmitted alternately (fig. 5c (571 and 572); column 4, lines 64-67, column 5, lines 1-21).

Consider **claim 25**, and **as applied to claim 23 above**, Scott, as modified by Johansson, clearly discloses and shows the method, wherein at least one of:

the first data burst and a subsequent group of the second data bursts are at different transmission frequencies (column 5, lines 7-10); and

a group of the second data bursts and a subsequent first data burst are at different transmission frequencies(column 5, lines 7-10) .

Consider **claim 26**, and **as applied to claim 25 above**, Scott, as modified by Johansson, clearly discloses and shows the method, which further comprises keeping

the transmission frequency constant during one of a transmission of the first data burst and a transmission of the group of the second data bursts (column 5, lines 7-10 (frequency band is constant for data bursts).

Consider **claim 27**, and **as applied to claim 21 above**, Scott, as modified by Johansson, clearly discloses and shows the method, wherein:

the guard time interval is between the first data burst and a subsequent one of the second data bursts (fig. 5a (503) collective guard time)), and

the guard time interval has an equivalent length as between one of the second data bursts and a subsequent first data burst (column 4, lines 37-47 (single collective guard time)).

Consider **claim 28**, and **as applied to claim 21 above**, Scott, as modified by Johansson, clearly discloses and shows the method, which further comprises providing guard time intervals of an equivalent length between successive second data bursts (fig. 5 (573); column 21, lines 38-46).

Consider **claim 29**, and **as applied to claim 21 above**, Scott, as modified by Johansson, clearly discloses and shows the method, which further comprises:

in the first data bursts, providing at least two data blocks, one of the data blocks being provided for each of the mobile stations (fig. 5c (578 has 16 mobile messages); column 20, lines 33-67, column 21, lines 7) ; and

providing a second data burst from each of the mobile stations in each of the group of second data bursts (fig. 5c (each mobile burst in 572 is represented by 575); column 21, lines 38-46)).

Consider **claim 30**, and **as applied to claim 21 above**, Scott, as modified by Johansson, clearly discloses and shows the method, which further comprises using the method in a system with real-time requirements selected from the group consisting of a cordless communication systems, a computer-controlled entertainment system, and a computer-controlled games system (column 49, lines 23-24, lines 31-35).

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Sai-Ming Chan
S.C./ sc

April 11, 2007